

1.1.5.1 Standard OEM Thermal Sensors

10mW to 20W

Features

- Conduction cooled
- Spectrally flat
- "A" version gives analog voltage calibrated to power
- "UA" version can give analog voltage output or digital RS232 output and can measure power or energy. Can also have multiple switchable ranges and/or multiple switchable wavelengths
- "UAU" version is similar to the UA version but operates via the USB terminal of the PC

20C-SH



20C-A



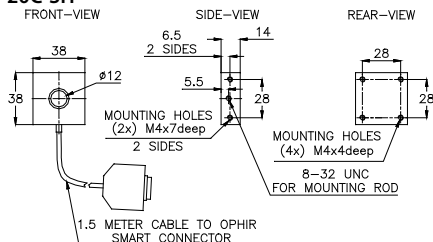
20C-UAU



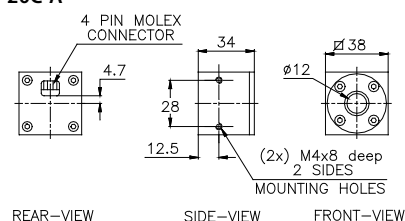
These specifications refer to standard OEM sensors, and are to be understood as generic, describing sensor families. Ophir will be happy to help you with a specific solution for your particular application.

Model	20C-SH	20C-A	20C-UAU
Type	Smart sensor	Analog OEM sensor	Digital USB connection digital output
Features	Compact smart sensor	Compact, built in amplifier	Compact, external amplifier board
Absorber Type	Broadband	Broadband	Broadband
Spectral Range μm	0.19 - 20	0.19 - 20 ^(c)	0.19 - 20 ^(c)
Aperture mm	$\phi 12$	$\phi 12$	$\phi 12$
Power Mode			
Maximum power ^(a)	4W free standing 20W heat sunked	4W free standing 20W heat sunked	4W free standing 20W heat sunked
Minimum power	10mW	20mW	10mW
Power Noise Level	0.2mW	0.5mW	0.2mW
Maximum Average Power Density kW/cm ²	23 at 20W 35 at 4W	23 at 20W 35 at 4W	23 at 20W 35 at 4W
Response Time (0-95%), typ. (sec)	0.8	0.8	0.8
Power Accuracy +/- % at calibrated wavelength	3	3	3
Linearity with Power +/- %	1	1	1
Amplifier power supply (for A, UAU versions)	NA	$\pm 5\text{V}$ to $\pm 18\text{V}$ regulated	Via host USB
Energy Mode			
Maximum Energy	10J	NA	NA
Minimum Energy	6mJ	NA	NA
Energy Accuracy +/- % at calibrated wavelength	5	NA	NA
Maximum Energy Density J/cm ²			
<100ns	0.3	NA	NA
0.5ms	2	NA	NA
2ms	2	NA	NA
10ms	2	NA	NA
Cooling	conduction	conduction	conduction
Output	Ophir smart plug	4 pin Molex ^(b)	Mini B USB connector
Dimensions	38x38x14mm	38x38x34mm	38x38x14mm
Part number	7Z02602	Consult Ophir representative	Consult Ophir representative
Note: (a)	With analog "A" version, maximum power is also limited by maximum output voltage where output voltage is at most 2V less than input voltage.		
Note: (b)	4 pin Molex connections: +Voltage, -Voltage, Analog signal out, Ground		
Note: (c)	Calibrated at customer selected wavelength		

20C-SH



20C-A



20C-UAU

